

# Kissing Point Ferry Wharf Upgrade

Submissions report

Transport for NSW | March 2020



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Prepared by Transport for NSW

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Kissing Point Ferry Wharf Upgrade, Submissions report, March 2020

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## Document controls

### Approval and authorisation

Title	Kissing Point Ferry Wharf Upgrade Submissions Report
Accepted on behalf of Transport for NSW by:	
Signed:	
Dated:	

### Document status

Document status	Date	Prepared by	Reviewed by
Draft	February 2020	Sam Wu	Lisa Monaghan

# Executive summary

This submissions report relates to the Review of Environmental Factors (REF) prepared for the Kissing Point Wharf Upgrade, and should be read in conjunction with that document.

The Kissing Point Wharf Upgrade is being delivered as part of the Transport Access Program. The Proposal involves the replacement of the existing Kissing Point Wharf, refurbishment of the existing jetty and accessibility compliance work at the wharf entrance. The wharf upgrade will provide access for mobility impaired people, meeting the standards of the Disability Discrimination Act (DDA) (1992) and Disability Standards for Accessible Public Transport (DSAPT) (2002).

As part of the planning process Transport for NSW (TfNSW) placed the REF on public display for 21 days between Tuesday 28 January and Monday 17 February 2020. A Community Information Session was held on Thursday 6 February 2020.

A total of eight submissions from the community and two from businesses were received. The submissions have been categorised into seven main areas:

- Proposal design;
- Alternative bus services during construction;
- Parking at alternative wharves during construction;
- Provision of a temporary ferry wharf during construction;
- Construction related impacts to nearby public spaces;
- The need for the proposal;
- Changes to ferry network services

Local Council, Heritage NSW and other government stakeholders have been consulted during the design development process.

## The Proposal

TfNSW is proposing to upgrade Kissing Point Ferry Wharf (the Proposal). The Proposal includes both landside and waterside upgrades. Details of the Proposal are provided in Section 1.1 of this Submissions Report.

## Display of the Review of Environmental Factors

TfNSW prepared an REF for the Kissing Point Wharf Upgrade. The REF was publicly displayed between Tuesday 28 January 2020 and Monday 17 February 2020. The REF document was published on the TfNSW project webpage and made available for download. A hard copy was also made available at City of Ryde Customer Services Centre. During this time, TfNSW invited the public to provide feedback on the Proposal.

In addition, a community information session was carried out during the public display period on Thursday 6 February 2020 to give the community a chance to learn more about the project, ask questions and 'have their say'.

## Summary of issues and responses

The public display of the REF resulted in a total of 10 submissions. Eight of which were from the general community and two were from businesses. Of these submissions, one was in support of the Proposal and one objected to the Proposal. The remaining eight submissions offered no position on whether they supported or objected to the Proposal. The main issues raised and responses to those issues are summarised below.

### ***Proposal design***

Five submissions provided feedback, criticism and concerns regarding the design of the wharf, jetty and interchange. These design issues have either been already incorporated into the design, addressed by the project team or are outside of the scope of the project. These critiques and suggestions included designs for small vessel berthing, placement of bollards, request for touch screen kiosks and installation of barriers. It is noted the wharf has been designed for 200 tonne vessels and those wishing to use recreational vessels have been informed that a public wharf adjacent to the Kissing Point Wharf is available in Kissing Point Park.

### ***Alternative bus services during construction***

Two submission raised concerns about the adequacy of the 507 alternative bus services, particularly during daytime off-peak, to replace the ferries during the closure. At present the daytime off peak ferry runs every half an hour and the 507 bus runs every hour. Current opal data indicates that off-peak ferry service demand per hour is relatively low and does not warrant an increase in 507 bus service frequency.

### ***Parking at alternative wharves during construction***

Two submissions raised concerns about available parking at other wharves during the upgrade. Currently there is no opportunity to increase parking available at Meadowbank Wharf and Huntleys Point Wharf. The project team encourages commuters to utilise the alternate bus services available.

### ***Provision of a temporary ferry wharf during construction***

One submission raised concerns about the lack of ferry service during construction and suggested use of a temporary wharf. TfNSW deemed that the patronage is insufficient to warrant a ferry service via a temporary ferry wharf. In addition, there is no suitable public wharves in close proximity to Kissing Point Park that would meet operational and passenger safety requirements.

### ***Construction related impacts to nearby Public Spaces***

One submission suggested staging the works to minimised blocked access from the path to the adjacent beach to Kissing Point Wharf during construction. TfNSW will ensure the contractor stages the landside works to minimise disruption to the park. It is likely the required secure path fencing will be localised around the area of the paths works. Access to the beach will still be available from Waterview Street.

### ***The need for the proposal***

One submission questioned the need for the wharf to be upgraded. The upgrade is necessitated by the requirement to ensure public transport infrastructure, including wharves are fully compliant with the standards made under Disability Discrimination Act 1992 by 2022. The wharf upgrade is required to satisfy accessible transport requirements.

### ***Changes to Ferry Network Services***

A number of the community members raised concerns during the community information session about the proposed 2021 Transdev network service changes. The ferry operations is outside the scope of the Ferry Wharf Upgrade Program. Ferry operations are managed by Transdev Sydney Ferries. TfNSW will pass on the feedback received from the community to Transdev Sydney Ferries.

## **Additional environmental studies**

Since display of the REF an additional Addendum Statement of Heritage Impact (SOHI) Maritime Heritage has been carried out by RPS Group in response to consultation with Heritage NSW. The assessment identified that there is low risk of heritage elements being impacted by the works however exclusion zones should be noted in the proposed works program and an unexpected find protocol would be applied.

## **Next steps**

TfNSW as the determining authority will consider the information in the REF and this submissions report and make a decision whether or not to proceed with the Proposal.

TfNSW will inform the community and stakeholders of this decision and where a decision is made to proceed will continue to consult with the community and stakeholders prior to and during the construction phase.

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Addendum Statement of Heritage Impact  
(SOHI) Maritime Heritage, RPS Group, March  
2020

# 1. Introduction and background

## 1.1 The Proposal

TfNSW is proposing to upgrade Kissing Point Ferry Wharf (the Proposal). The Proposal includes both landside and waterside upgrades.

The waterside features of the Proposal include:

- Removal of about 20 metres of the existing jetty, gangway, pontoon and associated wharf structures, including existing piles and gangway;
- Installation of a new 18-metre long by nine metre wide, floating covered pontoon, held in position by four new piles and two pivot piles at end of the pontoon;
- Installation of a new three-metre wide by 18-metre long uncovered gangway;
- Remediation of existing three-metre-wide and 80-metre-long jetty; and;
- Installation of an intermediate rest area and rest area/viewing platform at interface with the gangway.

The landside features of the Proposal would include:

- Five new bicycle racks to be installed near the ferry wharf;
- Minor demolition of redundant non-compliant footpath and landscaping make-good;
- New rest area and pedestrian crossing to comply with *Disability Discrimination Act 1992* (DDA) and National Construction Code (NCC);
- New accessible parking to comply with Disability Standards for Accessible Public Transport 2002 (DSAPT) and compliant footpath and rest areas to Waterview Street;
- New kiss and ride/taxi stop and repositioned shelter;
- Installation of new drink fountain adjacent to the ferry wharf.

An overview of the Proposal is shown in Figure 1.

Construction of the Proposal would be continuous and is anticipated to start in the second quarter of 2020 and take about five months to complete the work.

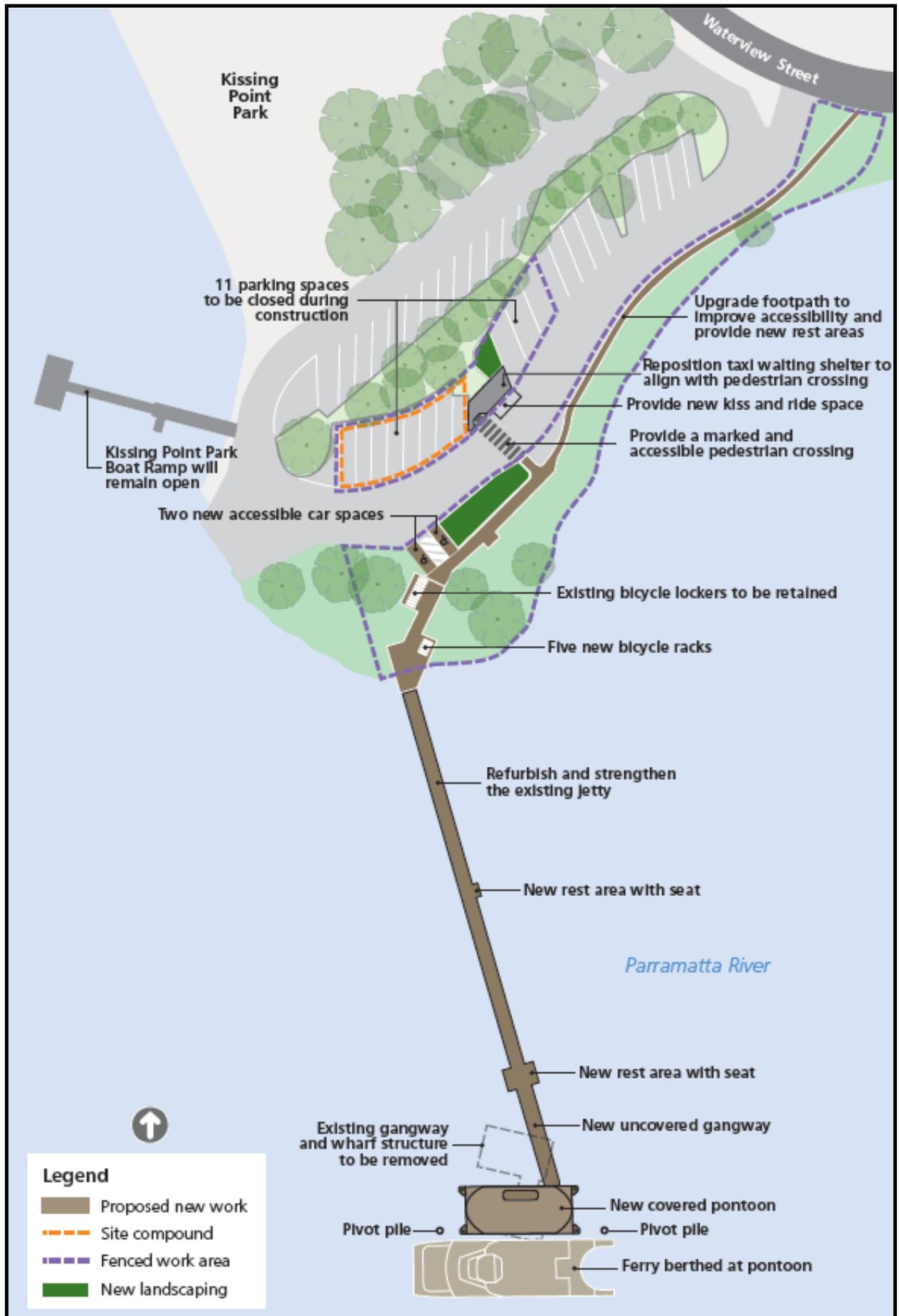


Figure 1 Overview of the Proposal

## 1.2 REF display

TfNSW prepared an REF to assess the potential environmental impacts of the proposed works. The REF was publically displayed for 21 days between Tuesday 28 January 2020 and Monday 17 February 2020 at one location, as detailed in Table 1-1. The REF was placed on the TfNSW project website and made available for download.

Table 1-1: Display locations

Location	Address
City of Ryde Customer Services Centre	1 Pope Street, Ryde NSW 2112

## 1.3 Purpose of the report

This submissions report relates to the REF prepared for the proposed Kissing Point Wharf Upgrade and should be read in conjunction with that document.

The REF was placed on public display and submissions relating to the Proposal and REF were received by TfNSW. This submissions report summarises the issues raised and provides responses to each issue (Chapter 2). It then outlines any new environment studies and identifies new or revised environmental management measures (Chapter 3).

## 2. Response to issues

TfNSW received 10 submissions, accepted up until the Monday 17<sup>th</sup> February 2020. Table 2-1 lists the respondents and each respondent's allocated submission number. The table also indicates where the issues from each submission have been addressed in this submissions report.

Table 2-1: Respondents

Respondent	Submission No.	Section number where issues are addressed
Business 1	1	Section 2.2;
Business 2	2	Section 2.2;
Individual 1	3	Section 2.3;
Individual 2	4	Section 2.3;
Individual 3	5	Section 2.3;
Individual 4	6	Section 2.2;
Individual 5	7	Section 2.2;
Individual 6	8	Section 2.4;
Individual 7	9	Section 2.3;
Individual 8	10	Section 2.2, Section 2.5.

### 2.1 Overview of issues raised

A total of eight submissions from the community and two from businesses were received in response to the review of environmental factors.

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised and TfNSW response to these issues forms the basis of this chapter.

Of the ten submissions received, one supported the Proposal and one objected to the Proposal. The remaining eight submissions offered no position on whether they supported or objected to the Proposal.

The issues raised in the submissions from the community and businesses can be categorised into seven main areas:

- Proposal design;
- Alternative bus services during construction;
- Parking at alternative wharves during construction;
- Provision of a temporary ferry wharf during construction;
- Construction related impacts to nearby public spaces;
- The need for the proposal;
- Changes to ferry network services.

## 2.2 Proposal design

### 2.2.1 Recreational berthing

#### **Submission number(s)**

1

#### **Issue description**

One submission suggested a design change to allow easier berthing of recreational vessels and water taxis along the northern side of the pontoon.

#### **Response**

TfNSW has reviewed the wharf design during design development in the context of the nearby facilities, bathymetric and tidal conditions. The project team has decided against providing recreational berthing on the northern side of the Kissing Point Wharf pontoon due to challenging bathymetric and tidal conditions in this area. TfNSW notes that there is a public wharf in Kissing Point Park adjacent to the Kissing Point Ferry Wharf that may be used by recreational vessels and water taxis.

### 2.2.2 Wharf Design

#### **Submission number(s)**

2, 6, 7, 10

#### **Issue description**

Four submissions critiqued the overall design of the wharf and provided feedback, criticism and concerns. While both positive and negative responses were received, the submissions report has addressed legitimate concerns/shortfalls in the design of the wharf. The concerns raised include the following:

1. Request for 2 bollards to be placed on each bay for upstream and downstream services;
2. Hard steel cornered pontoon are an issue for smaller vessels;
3. Hard steel cornered fenders are unsympathetic for vessels;
4. Design only caters for Sydney Ferry length vessels;
5. Challenging tidal conditions. Suggested elbow cleats on pivot piles;
6. Request for entry and exit barriers on the gangway;
7. Request for lighting along the full length of the jetty;
8. Appropriate fishing signage and enforcement;
9. Touch screen kiosk to supplement existing Ferry Operation and Communication Information System (FOCIS) screens;
10. Opal readers located on the pontoon rather than the jetty;

11. Safety of children due to the lack of barriers;
12. Concerned about the impact of pontoon's orientation for ferries on tidal movements, ferry operations and on the river;
13. Unnecessary installation of bicycle racks.

**Response**

TfNSW has taken into consideration the design issues raised by the community and provides the following responses:

1. Bollards have been included in the wharf design with two bollards per fender for a total of six bollards on the berthing face on the southern side of the pontoon;
2. Recreational berthing for smaller vessels on the pontoon will not be provided due to challenging bathymetric and tidal conditions in this area. Recreational vessels and water taxi's may berth at the public wharf adjacent to the Kissing Point Ferry Wharf in Kissing Point Park;
3. The project team has designed the fender system in consultation with Transdev Sydney Ferries to accommodate operational requirements;
4. The wharf has been designed to cater for 200 tonne vessels. The dimensions of the pontoon is determined by a number of factors, including the low patronage numbers;
5. The project team has designed the wharf orientation in consultation with Transdev Sydney Ferries to determine the optimal berthing angle to minimise tidal impacts during vessel berthing. Elbow cleats was considered during design but was not considered further due to design and operational challenges;
6. Entry and exit barriers on the gangway were not considered necessary in the wharf design due to the patronage numbers obtained from Opal. Furthermore, ferry operators did not request this feature during stakeholder consultation.

Wharf	Maximum Patronage Per Hour		
	Boarding	Alighting	Total
Kissing Point	4	31	35

Table 2-2 Opal patronage numbers

7. The lighting will be provided for the full length of the jetty as part of the upgrade;
8. Fishing is restricted on the wharf. New signage specifying restricted fishing hours will be included as part of the upgrade;
9. Touch screen kiosks are not part of the standard Transdev Sydney Ferries equipment requirements, therefore will not be provided;
10. Opal card readers are required to be mounted onto a fixed non-moving structure. The opal card readers are located at the viewing platform as close to the pontoon and gangway as possible;
11. The Kissing Point Wharf pontoon is a standard design that has been designed to create a distinctive theme for Sydney Harbour. The design is compliant with maritime related Australian Standards. TfNSW recommends children be supervised by parents and/or guardians at all times while on the pontoon;
12. The project team has had extensive consultation with Transdev Sydney Ferries in selecting an orientation that minimises impacts on tidal movements and on the river and satisfies operational requirements;

13. Bicycle racks are an interchange requirement as part of the ferry wharf upgrade program to allow for seamless transitions between different transport modes.

## 2.3 Alternate Transportation

### 2.3.1 Bus Services

#### ***Submission number(s)***

3, 4

#### ***Issue description***

A number of submissions and feedback during community information session raised concerns in relation to the proposed 507 alternative bus service in that it was considered inadequate to replace ferries during closure, particularly during daytime off-peak periods. It was considered that the frequency of bus services should be increased to 30 minute intervals during day time off-peak to align with current ferry provisions, or alternative ferry services be provided.

#### ***Response***

TfNSW has considered the need for additional bus services during daytime off-peak periods, however it was not considered viable as the current opal data in Table 2-2 indicates that off-peak ferry service demand per hour is relatively low. The project team encourages commuters that are affected by the upgrade to use the 507 bus services provided.

### 2.3.2 Parking at Other Wharves

#### ***Submission number(s)***

5, 9

#### ***Issue description***

A number of submissions and feedback during community information session raised the need for increased parking at the alternative wharves such at Meadowbank and Huntley's Point to accommodate any customers parking at these wharves.

#### ***Response***

The project team has reviewed the parking availability at both Meadowbank Wharf and Huntleys Point Wharf. Currently, there is parking available at both wharves with limited opportunity to increase the parking available at these sites. The project team encourages commuters to utilise the alternate bus services available. .

### 2.3.3 Ferry Services

### ***Submission number(s)***

3

### ***Issue description***

One submission requested investigation using transport demand forecasting models to estimate the economic costs of closing the wharf without a ferry replacement service and to forecast number of expected passengers using a replacement service. There were also four responses from the community during the Community Information Session suggesting to use the neighbouring vacant industrial site as a temporary wharf for ferry services.

### ***Response***

TfNSW has considered the patronage numbers at Kissing Point Wharf in determining whether a continued ferry services using a temporary wharf would be warranted. The patronage numbers are displayed in Table 2-2 at Kissing Point Wharf and thus the expected number of passengers using a replacement services would also be low. The project team deemed that the patronage is insufficient to warrant a ferry service via a temporary ferry wharf. In addition, there is no suitable public wharves in close proximity to Kissing Point Park that would meet operational and passenger safety requirements.

## 2.4 Construction Impacts

### ***Submission number(s)***

8

### ***Issue description***

One submission raised the concern of limited access to the adjacent beach due to the construction of the pedestrian footpath between the jetty and Waterview Street. The submission suggested that the fencing should be erected only during the construction of the footpath and not during the construction of the wharf interchange to minimise disruption to access to the beach.

### ***Response***

The landside works will be staged to minimise disruption in the park. The Contractor is required to provide the secure fencing for the landside construction works and determine the appropriate location. It is likely that the path barrier fencing will be localised around the area of the path works. Access to the beach will still be available from Waterview Street.

## 2.5 The need for the proposal

### ***Submission number(s)***

10

### ***Issue description***

One submission questioned the necessity of the upgrade of the wharf, jetty and interchange and considers the reasons for the upgrade vacuous.

### ***Response***

The necessity of the Kissing Point Wharf Upgrade is outlined in Section 2.1 of the Review of Environmental Factor.

The Disability Standards for Accessible Public Transport 2002 (DSAPT) and Disability (Access to Premises – Buildings) Standards (2010) (Disability Standards 2010) made under the Disability Discrimination Act 1992 (DDA), require all public transport infrastructure, including wharves, to be fully compliant by 2022. The Proposal is required to satisfy accessible transport requirements.

At present, a number of elements of the existing wharf interchange including the gangway at different tide levels, disabled parking spaces and pedestrian footpath are currently non-compliant. The ferry upgrade is required to ensure Kissing Point Wharf meets the legislative requirements and provides accessible transport for the community.

## **2.6 Changes to the ferry network services**

### ***Community Information Session***

10 responses

### ***Issue description***

There were ten responses from the community during the Community Information Session raising concerns about the proposed changes to ferry services by Transdev Sydney Ferries, which would terminate the F3 ferry services at Barangaroo rather than Circular Quay.

### ***Response***

The ferry operations is outside the scope of the Ferry Wharf Upgrade Program. Ferry operations are managed by Transdev Sydney Ferries. TfNSW will pass on the feedback received from the community to Transdev Sydney Ferries.

## 3. Additional environmental studies

Heritage NSW provided feedback on the Statement of Heritage Impact (SoHI). In summary, it required the SoHI to consider the maritime archaeological impacts associated with the Proposal and to develop safeguards and management measures specifically to address the maritime archaeological environmental risks.

### 3.1 Non aboriginal heritage (Maritime)

#### 3.1.1 Methodology

An Addendum SOHI (Maritime Heritage) for the proposal has been undertaken by a maritime archaeological service provider (RPS Group). This assessment included review of relevant databases, assessment of relevant historical research, and a site survey undertaken on 13 March 2020 which was also supported by a hydrographic survey undertaken by TfNSW (Maritime) on 6 March 2020

#### 3.1.2 Description of existing environment and summary of findings

##### Ship Breaking

Historical research indicates that the area of Kissing Point on the Parramatta River was identified as the location of the 'Kidman and Mayoh Shipyard' operating in some form from around 1918 until it the site was abandoned as a shipping year in around 1922.

The site survey and historical research indicates that any evidence of the Kidman & Mayosh shipyard, and as such evidence of ship breaking, will no longer remain due to the nature of the construction and ongoing disturbance of the site

Numerous post holes were observed on site. The post holes correspond with the location of remnant slipways evident in the 1943 aerial photo of the subject site (before shipbreaking occurred in this location) and it is possible this is evidence of the infrastructure associated with former Kidman & Mayoh Shipyards. There is no evidence that significant structures were built for shipbreaking, and it is unlikely these post holes relate to that period.

##### Abandoned watercraft

Searches of relevant maritime databases did not return any identified wrecks or submerged sites likely to be present within the vicinity of the study area. There is a possibility that the remains of abandoned watercraft could be present within the vicinity of Kissing Point Wharf. However, likelihood of such evidence in the works area is considered low due to historical disturbance associated with the disturbance of the site, most recently by wharf construction and associated watercraft activity.

##### Other Structures

Remnant evidence of maritime activities was observed on the rock platform (refer Figure 7 of Appendix B). Numerous post holes were observed on site. Except for the remnants of iron elements adjacent to some of the post holes (believed to be structures used to reinforce concrete piles) and one concrete pile, no further structural remains were noted in the vicinity of the platform above the low water-line. Numerous markings

were also observed on both east and western side of the rock platform in an irregular pattern. Given the pattern of these markings, which would have required substantial force and tools, it is unlikely they are associated with timber boat building in the 19th century. The random pattern and required force required to make such markings suggest they are more likely the result of ancillary damage to the rock platform during scrapping of ships in the 1950s.

No remnants of previous maritime infrastructure were identified within the footprint of the current wharf.

The hydrographic survey did not indicate any additional areas of maritime archaeological sensitivity. The only features identified in the survey were existing pile and no evidence of submerged shipwrecks were identified.

### 3.1.3 Summary of the heritage impact assessment

The primary heritage impact, in light of the features identified on the rock platform, will arise from the piling and associated dredging although these works will be highly localised.

The addendum SOHI notes:

**The following aspects of the proposal respect or enhance the heritage significance of the item or conservation area for the following reasons:**

- As detailed in the previous SoHI, the potential heritage significance of the existing Kissing Point Wharf is not associated with its fabric or composition, as a relatively modern structure. The demolition of the existing wharf and replacement with a new wharf has no adverse maritime archaeological or heritage impact
- No potential for underwater cultural heritage has been identified in the subject area. The heritage impact is considered low in relation to the potential maritime infrastructure and associated archaeological deposits, and in relation to any potential shipwreck remains
- The proposed works are concentrated within the existing development footprint, and utilises existing footings where possible. No new interventions are proposed within the remnant footings or markings on the rock platform.
- While the construction of the proposed wharf and associated activities such as dredging would have an impact on archaeological deposits, the site has been subject to extensive disturbance such as dredging associated with the construction of the wharf, and ongoing propeller wash from ferries and recreational vessels. This is confirmed by the hydrographic survey which revealed no additional potential for submerged cultural heritage.

**The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures to be taken to minimise impacts:**

- The rock platform contains the only known physical evidence of historically significant maritime activities at Kissing Point. These consist of a pattern of circular holes cut into the platform surface, metal rods (reinforcement of former wharf structures). The proponent has identified these areas and no construction activities will be located in this area.
- While potential for submerged cultural heritage is low within the project area, it is noted that the area was a known shipbreaking area, and there are reports that the remains of the HMAS/HMS Stuart was buried at Kissing Point. There is no physical evidence to support this, and it is considered unlikely that any remnants of this or any vessel will be uncovered by the proposed works due to the extensive disturbance that has previously occurred on site.

### 3.1.4 Revised safeguards and management measures

Impact	Environmental safeguard	Responsibility	Timing
Remnant evidence of shipbreaking	Exclusion zones (as identified in the report) should be noted in the proposed works program to ensure that no ancillary works associated with the development (placement of machinery, access, scaffolds, etc.) impact the rock platform and identified cultural features.	Construction contractor	Pre-construction/construction
Unexpected Finds	<p>The RMS Unexpected finds protocol is to be applied to the project.</p> <p>The following additional considerations should be made as they relate to maritime heritage:</p> <ul style="list-style-type: none"> <li>• If any submerged material is identified during works, all work in the area must cease and a qualified maritime archaeologist called to assess the find</li> <li>• Notification may be required pursuant to s146 of the Heritage Act and s40 of the Underwater Cultural Heritage Act</li> </ul>	Construction contractor	Construction

## 4. Environmental Management

The REF for the Kissing Point Ferry Wharf Upgrade identified the framework for environmental management, including safeguards and management measures that would be adopted to avoid or reduce environmental impacts (section 7.2 of the review of environmental factors).

After consideration of the issues raised in the public submissions and by Heritage NSW, the safeguard and management measures have been revised as detailed below:

- Landside works are to be staged to minimise impacts on the park
- Exclusion zones (as identified in the report) should be noted in the proposed works program to ensure that no ancillary works associated with the development (placement of machinery, access, scaffolds, etc.) impact the rock platform and identified cultural features. The RMS Unexpected finds protocol is to be applied to the project.
- The following additional considerations should be made as they relate to maritime heritage:
  - If any submerged material is identified during works, all work in the area must cease and a qualified maritime archaeologist called to assess the find
  - Notification may be required pursuant to s146 of the Heritage Act and s40 of the Underwater Cultural Heritage Act

Should the Proposal proceed, environmental management will be guided by the framework and measures outlined below.

### 4.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified in order to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the Proposal. Should the Proposal proceed, these management measures would be incorporated into the detailed design and applied during the construction and operation of the Proposal.

A Construction Environmental Management Plan (CEMP) will be prepared to describe safeguards and management measures identified. The CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The CEMP will be prepared prior to construction of the Proposal and must be reviewed and certified by environment staff, Greater Sydney Project Office, prior to the commencement of any on-site works. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements. The CEMP would be developed in accordance with the specifications set out in the QA Specification G36 – Environmental Protection (Management System) and QA Specification G38 – Soil and Water Management (Soil and Water Plan).

### 4.2 Summary of safeguards and management measures

The REF for the Kissing Point Ferry Wharf Upgrade identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

After consideration of the issues raised in the public submissions, the environmental management measures for the Proposal (refer to Chapter 7 of the REF) have been revised. Should the Proposal proceed, the environmental management safeguards and management measures in Table 4-1 will guide the subsequent phases of the Proposal. Additional and/or modified environmental safeguards and

management measures to those presented in the REF have been underlined and deleted measures, or parts of measures, have been struck out.

Table 4-1: Summary of environmental safeguards and management measures

No	Impact	Environmental safeguards	Responsibility	Timing
1	Soil and water	<p>A Soil and Water Management Plan (SWMP) would be prepared and implemented as part of the CEMP. The SWMP would identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks would be addressed during construction.</p> <p>Erosion and sediment control measures are to be implemented and maintained (in accordance with the Landcom/Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)) to:</p> <ul style="list-style-type: none"> <li>• Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets</li> <li>• Reduce water velocity and capture sediment on site</li> <li>• Minimise the amount of material transported from site to surrounding pavement surfaces.</li> </ul> <p>Divert clean water around the site.</p>	Contractor	Pre-construction
2	Erosion and sedimentation	<p>Prior to commencement of construction activities a silt boom and curtain would be installed around the work area that may disturb the seabed. Installation should be undertaken during high tide periods from a boat. The device should be designed to rise and fall with the tide to prevent disturbance.</p> <p>The silt boom and curtain would extend from a minimum of 100 millimetres above the water line to a minimum of 2.5 metres below the water line before starting work.</p> <p>Inspection of the device should be undertaken on a daily basis after ebbing tides, with additional inspection be carried following storm events. Visual monitoring of turbidity inside and outside of the device would also be performed.</p> <p>Results of the observations of the integrity of the silt curtain are required to be recorded and maintained specifically for the purpose. Records are required to be kept on the site and to be made available for inspection by persons authorised by Roads and Maritime.</p> <p>Decommissioning should be carried out by boat</p>	Contractor	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
		during high tide periods and can be undertaken once construction activities are above seabed level. Prior to removing the device, conditions within the curtain will be assessed visually to verify that sediment has settled resulting in similar water turbidity to that outside the curtain.		
3	Erosion and sedimentation	Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis to identify any potential spills or deficient silt curtains or erosion and sediment controls.	Contractor	Construction
4	Erosion and scour	The number of jack-ups/anchor points would be minimised where possible. The locations would be selected to avoid areas of sensitive habitat, as discussed further in section 6.3.	Contractor	Construction
5	Erosion and scour	Work positioning barges, drilling and pile driving should occur during calm conditions to prevent excessive scouring and minimise any safety risks.	Contractor	Construction
6	Acid sulfate soils	The disturbance of sediment and/or the underlying soils should be kept to a minimum to lower the risk of exposing these sediments to oxygen. If ASS are identified as potentially being exposed to oxidation or spoil is to be generated during construction activities requiring disposal, a Acid Sulfate Soil Management Plan would be prepared. Potential or actual acid sulfate soils are to be managed in accordance with the Roads and Maritime Services Guidelines for the Management of Acid Sulphate Materials 2005.	Contractor	Construction
7	Contaminated land	If contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination. All other work that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Roads and Maritime Environment Manager and/or EPA.	Contractor	Construction
8	Water quality	Any chemicals or fuels stored at the site or equipment barges would be stored in a bunded area.	Contractor	Construction
9	Accidental spill	Refuelling of plant and equipment and storage of hazardous materials on barges is to occur within a double-bunded area.	Contractor	Construction
10	Accidental spill	A spill management plan would be developed and communicated to all staff working on site.	Contractor	Pre-Construction

No	Impact	Environmental safeguards	Responsibility	Timing
		<p>Appropriate land and aquatic spill kits are to be maintained on site and on barges. Aquatic spill kits must be specific for working within the marine environment.</p> <p>All workers will be advised of the location of the spill kit and trained in its use.</p> <p>Any aquatic spill (whether spill occurs on water on land and subsequently enters the water) is to be immediately reported to Roads and Maritime and Sydney Ports VTS and VHF Channel 13.</p>		
11	Accidental spill	If an incident (e.g. spill) occurs, the Roads and Maritime Services Environmental Incident Classification and Reporting Procedure is to be followed and the Roads and Maritime Services Contract Manager notified as soon as practicable.	Contractor	Construction
12	Accidental spill	Emergency contacts will be kept in an easily accessible location on vehicles, vessels, plant and site office. All workers will be advised of these contact details and procedures.	Contractor	Pre-Construction
13	Accidental spill	Vehicles, vessels and plant must be properly maintained and regularly inspected for fluid leaks.	Contractor	Construction
14	Accidental spill	No vehicle or vessel wash-down or re-fuelling would occur on-site.	Contractor	Construction
15	Accidental spill	In the event of a maritime spill, the incident emergency plan would be implemented in accordance with Sydney Ports Corporation's response to shipping incidents and emergencies outlined in the ' <i>NSW State Waters Marine Oil and Chemical Spill Contingency Plan</i> ' (Maritime, 2012).	Contractor	Construction
16	Aquatic biodiversity	<p>A Marine Ecology Management Plan would be prepared as part of the CEMP. This would include, but not be limited to, measures relating to the following activities to minimise the risk for pollution:</p> <ul style="list-style-type: none"> <li>• Sediment and rock debris control</li> <li>• Spills from concrete pour</li> <li>• Oil/fuel/chemical storage and spill management</li> <li>• Machinery and engine maintenance schedule to reduce oil/fuel leakage</li> <li>• Low impact barge positioning to prevent propeller scouring and thrust wash onto sensitive habitats, such as the mangroves</li> <li>• Minimise footprint and establish no-go zones</li> </ul>	Contractor	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
		<p>in sensitive habitats</p> <ul style="list-style-type: none"> <li>• Accidental waste/material overboard response (e.g. construction materials dropped into the harbour)</li> <li>• Biological hygiene (e.g. prevent spread of noxious species on and off the site).</li> <li>• Aquatic fauna management.</li> </ul>		
		No-go zones would be established to avoid damage to all terrestrial and nearby aquatic habitats. No-go zones should be marked on a map and displayed inside the construction barge and office. All staff responsible for manoeuvring the barge should check the map before selecting a new position.	Contractor	Pre-construction
		All lines should be suspended off the seafloor to minimise drag across areas of habitat.	Contractor	Pre-construction
		Work positioning barges, drilling and pile driving should occur during calm conditions.	Contractor	Construction
		Gentle start-up hammering is recommended to allow undetected aquatic fauna to leave the area and avoid hearing damage. Work should be stopped if large fauna is observed nearby.	Contractor	Construction
17	Terrestrial ecology – Trees	<p>Preparation of a Tree Protection Plan which includes tree protection devices and other recommended measures to ensure the protection and safe removal of nominated trees. Contents of the Tree Protection Plan would be in accordance with the Arboriculture Assessment (Appendix E). Topics are to include but not limited to the following:</p> <ul style="list-style-type: none"> <li>• Identifying prohibited activities, demolition works and excavations within Tree Protection Zones</li> <li>• Consideration of tree damage and root pruning where applicable</li> <li>• Tree removal process of T10, T14 and T26 as well as replacement planting guidelines</li> <li>• Tree protection fencing of T1-T3, T6-T8, T9-T12, T13, T15-T19 and T22-T25 along with installation of tree protection signs and ground protection of any nominated tree</li> <li>• Replacement planting on a ratio of 2:1 due to loss of trees</li> </ul>	Contractor/TfNSW	Pre-Construction/Construction
18	Pest species	Management measures are to be implemented to ensure <i>Caulerpa taxifolia</i> is not introduced to the area. These are to include but not be limited to practices outlined in the NSW Control Plan for	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
		the Noxious Marine Alga <i>Caulerpa taxifolia</i> (NSW I&I 2009).		
19	Noise and vibration	<p>Preparation of a noise and vibration management plan which would include but not be limited to the following:</p> <ul style="list-style-type: none"> <li>• An out of hours works procedure</li> <li>• Limit number, timing and placement of plant equipment</li> <li>• Identify placement of site hording or fencing to reduce noise at immediate receivers with expected reduction of around 5 dB to 10 dB</li> <li>• Undertake as much construction work as possible at a contractor's off-site facility, including assemblage of pre-fabricated components</li> <li>• Manage construction process and night-time period works (e.g. pile hammering during out of hours work)</li> <li>• Avoid or minimise these out of hours movements where possible</li> <li>• Specify a noise verification program to be carried out for the duration of the work in accordance with the Construction Noise and Vibration Management Plan and any approval and licence conditions in cases when vibration limits are exceeded</li> <li>• Plan traffic flow, parking and loading/unloading areas to minimise noise impacts (e.g. no reversing and concentrating activities)</li> <li>• Reduce unnecessary noise from construction personnel (e.g. no swearing or loud stereos)</li> <li>• Inform all employees, contractors and subcontractors are to receive an environmental induction</li> <li>• Minimise plant equipment and construction vehicles noise (e.g. non-tonal reversing beepers and ambient sensitive alarms)</li> <li>• Define exceedances of NMLs in each NCA for standard and OOH periods, including the area that require additional mitigation measures due to worst case exceedances of the proposed construction activities (Scenarios 4 through 6).</li> </ul> <p>Detailed description of noise and vibration measures are in Appendix F.</p>	Contractor	Pre-construction
20	Noise and vibration	Where practicable, work should be scheduled to avoid major student examination periods when students are studying for examinations such as	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
		before or during Higher School Certificate and at the end of higher education semesters.		
21	Noise	The noise levels of plant and equipment must have operating Sound Power or Sound Pressure Levels compliant with the criteria in Table 4.2 of Appendix F.	Contractor	Construction
22	Noise and vibration	Notification detailing work activities, dates and hours, impacts and mitigation measures, indication of work schedule over the night time period, any operational noise benefits from the work (where applicable) and contact telephone number. Notification should be a minimum of 7 calendar days prior to the start of work. A contact telephone number and email address will be available for community feedback	TfNSW/Contractor	Pre-construction
23	Vibration	Where required attended vibration, measurements should be undertaken at the commencement of vibration generating activities to confirm that vibration levels are within the acceptable range to prevent cosmetic building damage.	Contractor	Construction
24	Visual	Urban design principles would be integrated throughout the detailed design and construction of the proposal. The urban design principles would include: <ul style="list-style-type: none"> <li>• Provide a unified and consistent design both with the proposed structure and existing built elements along the foreshore</li> <li>• Maintain views through the proposed structure.</li> </ul> Ensure that the iconic elements of Thomas Walker Estate, and Greenwich Point maintain their character zones and are not adversely affected by the replacement wharf	TfNSW	Detailed design
25	Visual	Hoarding would be erected around the construction compound where possible, to reduce visibility.	Contractor	Construction
26	Visual	Where OOHW is required, lighting would be directionally controlled to limit potential impacts of light spill on surround receivers, including residential properties.	Contractor	Construction
27	General socio-economic impacts	An internet site and free-call number would be established for enquiries regarding the Proposal for the entirety of construction.  Contact details would be clearly displayed at the entrance to the site.	TfNSW	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
28	General socio-economic impacts	All enquiries and complaints would be tracked through a tracking system, and acknowledged within 24 hours of being received.	TfNSW	Pre-construction
29	General socio-economic impacts	<p>A Communication Plan (CP) would be prepared and implemented as part of the CEMP to help provide timely and accurate information to stakeholders during construction. The CP would include (as a minimum):</p> <ul style="list-style-type: none"> <li>• Mechanisms to provide details and timing of proposed activities to affected residents and local businesses, including changed traffic and access conditions</li> <li>• Contact name and number for complaints</li> </ul> <p>The CP would be prepared in accordance with the Community Involvement and Communications Resource Manual (RTA, 2008).</p>	TfNSW	Pre-construction
30	Social impacts	The construction area would be secured at all times.	Contractor	Construction
31		<u>The landside works will be staged to minimise disruption in the park.</u>	<u>Contractor</u>	<u>Construction</u>
32				
33		Closed Circuit Television (CCTV) is to be considered within the Proposal where required.	TfNSW	Detailed design
34	Social impacts	<p>Installation of Light Emitting Diode (LED) lighting is recommended along the pedestrian routes to car park, toilets and bus stops as well as near the bicycle racks and lockers to deter any antisocial behaviour. Lighting should create even and continuous coverage across wharf and public domain.</p> <p>Where OOHW is required, lighting would be directionally controlled to limit potential impacts of light spill on surround receivers, including residential properties.</p>	TfNSW	Detailed design
35		Consider installing additional help points within the car park, at the toilet area or at bicycle lockers/racks because of its distance from the wharf and isolation from nearby residents.	TfNSW	Detailed design
36		For consideration during detailed design and pre-construction, the existing wharf would be evaluated for security and safety implications. Consultation with the Ryde LAC and patrolling Burwood LAC and Council should be undertaken in any future decision.	TfNSW	Detailed design

No	Impact	Environmental safeguards	Responsibility	Timing
37	Land and water transport	Transport of equipment and materials to site via boat and barge would be utilised over land transport to limit impacts to the local road network.	Contractor	Construction
38	Water transport	<p>A Maritime Traffic Management Plan would be prepared and implemented during the water based construction work. The Maritime Traffic Management Plan would be prepared consultation with NSW Maritime and approved by the Harbourmaster.</p> <p>In addition, the Proposal would:</p> <ul style="list-style-type: none"> <li>• Fit all buoys with lights</li> <li>• Prepare Response Plans for emergencies and spills for all construction vessels</li> <li>• Fit at least one vessel with an Automatic Identification System (AIS)</li> <li>• Retrieve any material associated with the construction of the development that enters the water to prevent the obstruction of vessel movements</li> <li>• Prepare a Communications Plan for implementation during the work which must include 24/7 contact details, protocols for enquiries, complaints and emergencies.</li> </ul> <p>Any variation to the above would be agreed in advance with the Harbourmaster.</p>	Contractor	Pre-construction/ construction
39	Construction access and parking	Final access and parking arrangements would include a Traffic Management Plan. The Traffic Management Plan would also include measures to ensure light vehicle parking is strictly in accordance with Ryde Council requirements and prevents parking on footpaths and grassed areas adjacent the site.	Contractor	Pre-construction
40	Transport connection	Additional bus services would be provided to address the gap of ferry services between 9:30pm to 11:37pm on weekdays and after 6.40pm on weekends and public holidays. The community would be made aware of these amendments in accordance with the Communications Plan	TfNSW	Construction
41	Non-Aboriginal heritage	If work results in unexpected archaeological finds <u>on the landside</u> , all work must stop. Roads and Maritime are to be notified and the 'unexpected heritage items procedure' in the <i>Standard Management Procedure: Unexpected Heritage Items</i> (2015) is to be followed.	Contractor	Construction
42	<u>Non-</u>	<u>Exclusion zones (as identified in the report)</u>	<u>Contractor</u>	<u>Construction</u>

No	Impact	Environmental safeguards	Responsibility	Timing
	<u>Aboriginal heritage</u>	<u>should be noted in the CEMP and sensitive area plans to ensure that no ancillary works associated with the development impact the rock platform and identified cultural features. The RMS Unexpected finds protocol is to be applied to the project.</u>		
43	<u>Non-Aboriginal heritage</u>	<p><u>The RMS Unexpected finds protocol is to be applied to the project.</u></p> <p><u>The following additional considerations should be made as they relate to maritime heritage:</u></p> <ul style="list-style-type: none"> <li>• <u>If any submerged material is identified during works, all work in the area must cease and a qualified maritime archaeologist called to assess the find</u></li> <li>• <u>Notification may be required pursuant to s146 of the Heritage Act and s40 of the Underwater Cultural Heritage Act</u></li> </ul>	<u>Contractor</u>	<u>Construction</u>
44	<u>Non-Aboriginal heritage</u>	<del>Heritage NSW should be consulted prior to undertaking any work as a means of confirming any required permits or approvals.</del>	<del>TfNSW</del>	<del>Pre-construction</del>
45	Non-Aboriginal heritage	City of Ryde Council to be notified of any work prior to proceeding.	TfNSW	Pre-construction
46	Unexpected heritage finds	The Standard Management Procedure – Unexpected Heritage Items (Roads and Maritime, 2015) would be followed in the event that (an) unknown or potential Aboriginal object(s), including skeletal remains, is/are found during construction. Works would only restart once the requirements of that procedure have been satisfied.	Contractor	Construction
47	Waste	Appropriate measures to avoid and minimise waste associated with the Proposal should be investigated and implemented where possible	Contractor	Construction
48	Resource minimisation	Recycled, durable, and low embodied energy products would be considered to reduce primary resource demand in instances where the materials are cost and performance competitive and comparable in environmental performance (e.g. where quality control specifications allow).	Contractor	Detailed design
49	Waste	Waste management, littering and general tidiness would be monitored during routine site	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
		inspections.		
50	Waste	Waste would be classified before being disposed to an appropriately licenced facility in accordance with <i>Waste Classification Guidelines: Part 1 Classifying Waste</i> (EPA 2014). Where necessary, this would include sampling and analysis.	Contractor	Construction
51	Waste	Should spoil be generated during construction activities, further sampling and analysis should be undertaken to confirm the waste classification prior to disposal.	Contractor	Construction
52	Hazards and risks	Appropriate emergency equipment such as flotation devices and first aid kits would be kept within the construction area.	Contractor	Construction
53	Hazards and risks	All utilities within and adjacent to the Proposal footprint would be located prior to the start of the work.	Contractor	Construction
54	Hazards and risks	Safe work method statements or similar would be implemented to manage health and safety risks for the work.	Contractor	Construction
55	Hazard and risks	Weather forecasts and flood warnings would be monitored during construction. In the event of a major flood event, equipment and materials would be temporarily removed from the site, where appropriate.	Contractor	Construction
56	Air quality	Air quality during construction would be considered and addressed within the CEMP and would include methods to manage work during strong winds or other adverse weather conditions as required	Contractor	Detailed design/ pre-construction
57	Cumulative construction impacts	<ul style="list-style-type: none"> <li>• Consultation with Department of Industry – Water and King’s Rowing School to confirm timing of projects with the Proposal</li> <li>• Consultation would include notification prior to the start of the work.</li> </ul> <p>Updates on any delays or changes to the construction period would also be communicated.</p>	TfNSW	Pre-construction/ construction

## 4.3 Licensing and approvals

Table 4-2: Summary of licensing and approval required

Instrument	Requirement	Timing
Approval from the Deputy Harbour Master	Approval from the Deputy Harbour Master for any work that disturb the seafloor.	Prior to the commencement of any work
Approval from the Department of Planning, Industry and Environment (NSW Heritage)	Consultation with NSW Heritage to confirm procuring permit or exemption for potential impacts to local heritage item of 'former boat slips'.	Prior to the commencement of the Prop

## 5. References

Transport for NSW, January 2020, Review of Environmental Factors, Kissing Point Wharf Interchange Upgrade

RPS Group, March 2020, Kissing Point Wharf Upgrade Addendum Statement of Heritage Impact (Maritime Heritage)

## Appendix A

Review of Environmental Factors, Kissing Point Wharf Interchange Upgrade, January 2020.

## **Appendix B**

Kissing Point Wharf Upgrade – Addendum Statement of Heritage Impact (Maritime Heritage)